

CH2M

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Ms. Leslie Blake Remedial Project Manager Superfund Division U.S. EPA, Region 5 77 West Jackson Boulevard (SR-6J) Chicago, Illinois 60604

July 31, 2017

Subject: Estimated Costs for Vapor Intrusion Mitigation at Eight Locations at the Keystone Corridor

Groundwater Contamination Site, Marion, County, Indiana

Dear Ms. Blake,

Per the U.S. Environmental Protection Agency's (U.S. EPA's) request, please find attached a Class 4 cost estimate for the mitigation of vapor intrusion at eight specific existing structures identified during remedial investigation (RI) activities completed in 2016 and 2017 at the Keystone Corridor Groundwater Contamination Site (Site). The expected accuracy range of the estimate is -30% to +50%. The mitigation costs include sealing of building slabs, diagnostic testing, and the installation of vapor intrusion mitigation system (VIMS). Also included are costs for work planning, permitting, and 5 years of VIMS operation and maintenance with associated reporting. For comparison, as requested, an alternative is also presented for 5 years of monitoring at 20 structures without active mitigation.

This costing effort was completed prior to and outside of the sitewide feasibility study (FS) currently underway as part of the RI/FS process for Work Assignment 215, which will evaluate all media, pathways, and receptors. It is assumed that this costing information will be included in the FS yet to be written.

For any questions regarding this material, please do not hesitate to contact me at 513-587-7013 or via email at brett.fishwild@ch2m.com.

Regards, CH2M HILL, Inc.

Brett A. Fishwild Site Manager

But A. John

Summary of Cost Analysis

Keystone Corridor - Interim ROD VIMS Estimates

Alternatives			Alternative 1 No Action			Alternative 2 d/or Subslab Mo uctures with VII		Alternative 3 Identification and Sealing of Vapor Entry Points, Diagnostic Testing, VIMS Installation/Startup/Commissioning			
Alternative	Evaluation Timeframe ¹		5 years			5 years		5 years			
		-30%	Estimate	+50%	-30%	Estimate	+50%	-30%	Estimate	+50%	
Total Implementation Co	osts	\$0	\$0	\$0	\$35,000	\$50,000	\$75,000	\$808,000	\$1,154,441	\$1,732,000	
Present Value of Future Costs	Discount Rate of 0.4% (OMB, 2014)	\$0	\$0	\$0	\$355,000	\$507,626	\$761,000	\$192,000	\$273,639	\$410,000	
Grand Total Present Value	Discount Rate of 0.4% (OMB, 2014)	\$0	\$0	\$0	\$390,000	\$557,626	\$836,000	\$1,000,000	\$1,428,000	\$2,142,000	

Notes and References:

• The "Real" Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rates for Cost Effectiveness, Lease Purchase, and Related Analysis"

The Real Discount Rates are a forecast of real interest rates from which the inflation premium has been removed and based on the economic assumptions from the December 2014 Budget Baseline. These real rates are to be used for discounting constant-dollar flows, as is often required in cost-effectiveness analysis.

- USEPA. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA. OSWER Directive 9355.3-01. EPA/540/G-89/004. October.
- USEPA. 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. With the U.S. Army Corps of Engineers. OSWER 9355.0-75. EPA 540-R-00-002. July.

This is not an offer for construction and/or project execution.

These AACE Classification Class 4 cost estimates are assumed to represent the actual total installed cost within the range of -30 percent to +50 percent (% based on AACE) of the cost indicated. It would appear prudent that internal budget allowances account for the highest cost indicated by this range as well as other site specific allowances. The cost estimate has been prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final costs of the project will depend on actual labor and material costs, competitive market conditions, implementation schedule, and other variable factors. As a result, the final project costs will vary from the estimates presented herein. Because of this, project feasibility and funding needs must be carefully reviewed prior to making specific financial decisions to help ensure proper project evaluation and adequate funding.

KCH-2622-0079-0049

¹ The 5-year timeframe evaluated is for VIMS installation through the first Five Year Review. VIMS operation, maintenance, and monitoring will need to continue until the VI pathway is no longer capable of being completed.

Alternative 1: No Action

Keystone Corridor - Interim ROD VIMS Estimates

Item/Activity	Qty	Unit	Unit Cost	Cost	Notes & Comments
IMPLEMENTATION COST					
No Action					
No Action			\$0	\$0	
Subtotal				\$0	
Contingency	25%			\$0	
Project Management	10%			\$0	
General Conditions and Administration (G&A)	7%			\$0	
Overhead & Profit	8%			\$0	
o vollidad di Flori	3,0			Ψ.	
	Total	Implem	entation Cost	\$0	
FUTURE COSTS (5 years)					
No Action					
No Action			\$0	\$0	
Laboratory and DV			ΨΟ	ΨΟ	
Report					
ТОРОТ					
Subtotal			\$0	\$0	
Contingency	25%		\$0	\$0	
Project Management	10%		\$0	\$0	
G&A	7%		\$0	\$0	
Overhead & Profit	8%		\$0	\$0	
Subtotal			\$0	\$0	
				·	
Semi-Annual Monitoring			\$0		
Semi-Annual Total Future Cost				\$0	
Present Value _(0.4%)	5	year	0.4%	\$0	
of Future Cost Semi-Annual Monitoring					
	Present Va		0.4%	\$0	Y2017 PV calculated for 5-yrs-future-cost using 0.4% Real Discount Rate per Office of Management and Budget (2014) guidance.

Other Notes and References:

The 5-year timeframe evaluated assumes costs through the first 5-Year Review.

- The "Real" Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rate used to calculate the Present Rate
- Rates for Cost Effectiveness, Lease Purchase, and Related Analysis"

 USEPA. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA. OSWER Directive 9355.3-01. EPA/540/G-89/004. October.
- USEPA. 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. With the U.S. Army Corps of Engineers. OSWER 9355.0-75. EPA 540-R-00-002. July.

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Alternative 2: Indoor Air and/or Subslab Monitoring at 20 Structures with VIMS

Keystone Corridor - Interim ROD VIMS Estimates

Item/Activity	Qty	Unit	Unit Cost	Cost	Notes & Comments
IMPLEMENTATION COST					
MI ELMENTATION 3331					
Nork Plan for Indoor Air Monitoring at 20 Structures with VIMS					
Work Plan for Sampling	1	each	\$40,000	\$40,000	Pre-Draft, Draft, Draft Final, & Final. Includes Scoping sessions.
Subtotal				\$40,000	
Project Management	10%			\$4,000	
General Conditions and Administration (G&A)	7%			\$2,800	
Overhead & Profit	8%			\$3,200	
l	Total	Impleme	entation Cost	\$50,000	
FUTURE COSTS (5 years)					
 3 Semi Annual Monitoring at 20 Structures with VIMS - Year 1 and 2					
Labor	4	each	\$13,500	\$54.000	Assume 2 people for 50 hours/event @ \$135/hr
Laboratory and DV	4	each	\$20,177		BOA Rates
Report	4	each	\$15,000		Tech Memo Summary of Results
			0.10.0		
Subtotal	0.50/		\$48,677	\$194,708	
Contingency	25%		\$12,169	\$48,677	
Project Management	10%		\$4,868	\$19,471	
G&A Overhead & Profit	7% 8%		\$3,407 \$3,894	\$13,630 \$15,577	
Subtotal	070		\$73,016	\$292,063	
Guintal			ψ10,010	Ψ202,000	
Semi-Annual Monitoring Year 1 and 2			\$146,031		
Semi-Annual Total Future Cost				\$292,063	
Present Value _(0.4%) of Future Cost Semi-Annual Monitoring	2	year	0.4%	\$290,320	Year 1 and 2
Annual Manitaring at 20 Structures with VIMS Vegra 2 F					
Annual Monitoring at 20 Structures with VIMS - Years 3-5 Labor	2	each	\$13,500	\$40 500	Assume 2 people for 50 hours/event @ \$135/hr
Laboratory and DV	3	each	\$20,177		BOA Rates
Report	3	each	\$15,000		Tech Memo Summary of Results
			0.10.5==		
Subtotal	0.50/		\$48,677	\$146,031	
Contingency Project Management	25% 10%		\$12,169 \$4,868	\$36,508 \$14,603	
G&A	7%		\$3,407	\$14,603 \$10,222	
Overhead & Profit	8%		\$3,894	\$11,683	
Subtotal	570		\$73,016	\$219,047	
Monitoring Years 3-5			\$73,016	AC (A A :=	
Total Future Cost	^	1/06"	0.40/	\$219,047	Voors 2 F
Present Value (0.4%)	3	year	0.4%	\$217,306	Years 3-5
of Future Cost Monitoring (Years 3-5)					
	Present Va of All Future	, ,	0.4%		Y2017 PV calculated for 5-yrs-future-cost using 0.44 Real Discount Rate per Office of Management and Budget (2014) guidance.

Other Notes and References:

The 5-year timeframe evaluated assumes monitoring through the 5 year review.

- The "Real" Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rates for Cost Effectiveness, Lease Purchase, and Related Analysis"
- USEPA. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA. OSWER Directive 9355.3-01. EPA/540/G-89/004. October.
- USEPA. 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. With the U.S. Army Corps of Engineers. OSWER 9355.0-75. EPA 540-R-00-002. July.

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Analysis/Test	Sample Matrix	Field Samples	Field Duplicates	Total Number of Air Samples Samples	Unit Price	Subtotal Cost	Total Analytical Cost
Monitoring							
Assume 7 Events over Five Years							
Air and Soil Gas Sampling							
-							
Volatiles in Air	Air	13	2	15	\$199.61	\$2,994.15	\$2,994.15
Media Preparation - 6L SUMMA Canister with Batch Certification	NA	13	2	15	\$33.42	\$501.30	\$501.30
Flow Controller/Regulator for SUMMA Cansiter	NA	13	2	15	\$25.89	\$388.35	\$388.35
T- Connection for SUMMA Canister	NA	0	2	2	\$14.06	\$28.12	\$28.12
Weekly Rental for 6L SUMMA Canister	NA	13	2	15	\$44.55	\$668.25	\$668.25
•	•	•	•				
Volatiles in Soil Gas	Soil Gas	40	4	44	\$199.61	\$8,782.84	\$8,782.84
Media Preparation - 1L SUMMA Canister with Batch Certification	NA	40	5	45	\$41.88	\$1,884.60	\$1,884.60
Flow Controller/Regulator for SUMMA Cansiter	NA	40	5	45	\$25.89	\$1,165.05	\$1,165.05
T- Connection for SUMMA Canister	NA	0	5	5	\$14.06	\$70.30	\$70.30
Weekly Rental for 1L SUMMA Canister	NA	40	5	45	\$51.36	\$2,311.20	\$2,311.20
						0	640 704 40
						Subtotal	\$18,794.16
							^ -
				TOTALL	AB COS	FPER EVENT	\$18,794.16

Alternative 3 - MNA and LUCs Data Validation Backup OU 1 FS, MCAS Cherry Point

Analysis/Test	Sample Matrix	Field Samples	Field Duplicates	Number of Air and Soil Gas Samples	Total Billable Air Samples	Air and Soil Gas Unit Price	Air and Soil Gas Subtotal Cost	Total DV Cost
LTM Assume Seven Events over Five Years								
Air and Soil Gas Samples								
TCL VOCs	Air	53	6	59	59	\$23.44	\$1,382.96	\$1,382.96
							Subtotal	\$1,382.96
					TOTAL FUTU	RE DV CC	ST Per Event	\$1,382.96

Item/Activity	Qty	Unit	Unit Cost	Cost	Notes & Comments
·					
IMPLEMENTATION COST					
	T				
Mitigation Work Plan, Data Evaluation, and VIMS layout					
Work Plans	1	Each	\$60,000	\$60,000	Mitigation work plan, data evaluation, and VIMS layout. Includes
	-	<u> </u>			scoping sessions.
Air Permitting Equivalency	-				
Air Permit Requirements Evaluation	1	LS	\$10,000	\$10,000	Using offgas data from diagnostic testing
•					
VIMS Sealing, Diagnostic Testing, and Installation by Building					
CP-002					
Sealing	-				
Equipment and Subcontractor	+				
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
Elastomeric Polymer	20	Tube	\$8	\$160	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
PID Rental	1	Days	\$100	\$100	
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight	1	Days	\$135	\$135	
Diagnostic Testing		Harris	605	64.000	O magning of slow of the slow August and the state of the
Labor - 2-person Crew Miscellaneous Supplies	20	Hours	\$65 \$500	\$1,300 \$500	2 people, 1 day, 10-hr day; Average labor rate \$65
Exhaust Sampling	1	Each	\$500 \$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
VIMS Installation					
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	1	Each	\$3,500	\$3,500	
Mitigation Fan Electrician	1 4	Each Hours	\$750 \$150	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1	LS	\$750	\$750	1 of installation of mitigation fail, 4 nour minimum assumed
Piping Installation [4" diameter piping]	50	LF	\$50	\$2,500	Assume 50 ft of piping for each node
, <u>, , , , , , , , , , , , , , , , , , </u>				, ,,,,,,,	
CP-013/Gym					
Sealing					
Equipment and Subcontractor	- 1	1.0	64 500	64 500	Makilingtions will be combined where practical
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	Education 2 person order quality, 10 mm day
PID Rental	1	Days	\$100	\$100	
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight Travel and Per Diem for Oversight	10	Hours Days	\$135 \$135	\$1,350 \$135	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Diagnostic Testing	+'-	Days	\$133	\$100	
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies	1	LS	\$500	\$500	1
Exhaust Sampling	1	Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	2	Each	\$3,500	\$1,950	Average Labor Nate for a person crew - \$00/III, 1 day, 10-III day
Mitigation Fan	1	Each	\$750	\$750	
Electrician	4	Hours	\$150	\$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1	LS	\$750	\$750	
Piping Installation [4" diameter piping]	100	LF	\$50	\$5,000	Assume 50 ft of piping for each node
CP-013/Thomas Catering Warehouse - Vacant					
Sealing					
Equipment and Subcontractor	1	1			
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
•					Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	
PID Rental Misc Materials	1	Days LS	\$100 \$250	\$100 \$250	
Travel and Per Diem for Subcontractor	2	Days	\$250 \$135	\$250	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight	1	Days	\$135	\$135	
Diagnostic Testing					
	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - 2-person Crew		LS	\$500	\$500	Exhaust something and probability to the Control of
Miscellaneous Supplies	1		\$350	\$350	Exhaust sampling and analysis, including shipping
Miscellaneous Supplies Exhaust Sampling	1	Each			
Miscellaneous Supplies Exhaust Sampling Labor - Oversight	1 10	Hours	\$135	\$1,350 \$270	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem	1			\$1,350 \$270	Labor Rate for 1 person crew -\$135/nr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation	1 10	Hours Days	\$135		
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem	1 10 2	Hours	\$135 \$135	\$270	Lodging and Per diem of \$135/day/person
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan	1 10 2 30 1	Hours Days Hours Each Each	\$135 \$135 \$65 \$3,500 \$750	\$270 \$1,950 \$3,500 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician	1 10 2 30 1 1 4	Hours Days Hours Each Each Hours	\$135 \$135 \$65 \$3,500 \$750 \$150	\$1,950 \$3,500 \$750 \$600	Lodging and Per diem of \$135/day/person
Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan	1 10 2 30 1	Hours Days Hours Each Each	\$135 \$135 \$65 \$3,500 \$750	\$270 \$1,950 \$3,500 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day

CP-016/Woodshop					
Sealing					
Equipment and Subcontractor Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
					Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer PID Rental	20	Tube Days	\$8 \$100	\$160 \$100	
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight Travel and Per Diem for Oversight	10	Hours Days	\$135 \$135	\$1,350 \$135	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Diagnostic Testing					
Labor - 2-person Crew Miscellaneous Supplies	20	Hours	\$65 \$500	\$1,300 \$500	2 people, 1 day, 10-hr day; Average labor rate \$65
Exhaust Sampling	1	LS Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	3	Each	\$3,500	\$10,500	
Mitigation Fan Electrician	4	Each Hours	\$750 \$150	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1	LS	\$750	\$750	1 of installation of miligation ran, 4 hour millimidin assumed
Piping Installation [4" diameter piping]	150	LF	\$50	\$7,500	Assume 50 ft of piping for each node
CP-016/Schouten Metal					
Sealing					
Equipment and Subcontractor		1.0	64 500	04.500	Mak Washington will be a sasking discharge and all
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer PID Rental	20	Tube	\$8 \$100	\$160 \$100	
PID Rental Misc Materials	1	Days LS	\$100 \$250	\$100 \$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10 1	Hours	\$135 \$135	\$1,350 \$135	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight Diagnostic Testing	- '-	Days	\$135	\$135	
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies	1	LS	\$500	\$500	Eules est complies and analysis including shinning
Exhaust Sampling Labor - Oversight	10	Each Hours	\$350 \$135	\$350 \$1,350	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	4	Each	\$3,500	\$1,950	Average Labor Rate for 3 person crew - \$00/nii, 1 day, 10-nii day
Mitigation Fan	1	Each	\$750	\$750	
Electrician Miscellaneous Materials	1	Hours LS	\$150 \$750	\$600 \$750	For installation of mitigation fan, 4 hour minimum assumed
Piping Installation [4" diameter piping]	200	LF	\$50	\$10,000	Assume 50 ft of piping for each node
OD 040/Tools de Automotivo Auto Olem					
CP-016/Taylor's Automotive - Auto Shop Sealing					
Equipment and Subcontractor					
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	
PID Rental Misc Materials	1	Days LS	\$100 \$250	\$100 \$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight Diagnostic Testing	1	Days	\$135	\$135	
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies Exhaust Sampling	1	LS	\$500	\$500 \$350	Edward and based and and balance black
Exhaust Sampling Labor - Oversight	10	Each Hours	\$350		Exhaust sampling and analysis, including shipping
Travel and Per Diem					Labor Rate for 1 person crew -\$135/hr: 1 day 10-hr day
	2	Days	\$135 \$135	\$1,350 \$270	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation		Days	\$135	\$1,350 \$270	Lodging and Per diem of \$135/day/person
	30 2			\$1,350	
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan	30 2 1	Days Hours Each Each	\$135 \$65 \$3,500 \$750	\$1,350 \$270 \$1,950 \$7,000 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician	30 2 1 4	Hours Each Each Hours	\$135 \$65 \$3,500 \$750 \$150	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600	Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan	30 2 1	Days Hours Each Each	\$135 \$65 \$3,500 \$750	\$1,350 \$270 \$1,950 \$7,000 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping]	30 2 1 4	Days Hours Each Each Hours LS	\$135 \$65 \$3,500 \$750 \$150 \$750	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass	30 2 1 4	Days Hours Each Each Hours LS	\$135 \$65 \$3,500 \$750 \$150 \$750	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor	30 2 1 4 1 100	Hours Each Hours LS LF	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing	30 2 1 4	Days Hours Each Each Hours LS	\$135 \$65 \$3,500 \$750 \$150 \$750	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor	30 2 1 4 1 100	Hours Each Hours LS LF	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer	30 2 1 4 1 100 1 1 20	Hours Each Hours LS LF LS Hours LS Tube	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$1,300	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental	30 2 1 4 1 100 100	Hours Each Hours LS LF LS Hours LS LS LF LS	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer	30 2 1 4 1 100 1 1 20	Hours Each Hours LS LF LS Hours LS Tube	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$1,300	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight	30 2 1 4 1 100 100 20 1 1 1 20 20 1 1 1	Days Hours Each Hours LS LF LS Hours LS Days LS Days Hours	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$1,500 \$250 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,500 \$100 \$250 \$270 \$1,350	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight	30 2 1 4 1 100 100 1 20 20 1 1 2	Days Hours Each Hours LS LF LS Hours LS Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$160 \$100 \$250 \$270	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight	30 2 1 4 1 100 100 20 1 1 1 20 20 1 1 1	Days Hours Each Hours LS LF LS Hours LS Days LS Days Hours	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$1,500 \$250 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,500 \$100 \$250 \$270 \$1,350	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Giass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies	30 2 1 1 4 1 100 1 20 20 1 1 2 10 1 2 10 1 2 1 1 2 1 1 1 1	Days Hours Each Each Hours LS LF LS Hours Tube Days Hours Days Hours Hours LS	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling	30 2 1 4 1 1 100 1 20 20 1 1 1 20 1 1 2 1 1 2 1 1 2 1 1 1 1	Days Hours Each Hours LS LF LS Hours Tube Days Hours Days Hours Days Hours Days Hours Days Hours Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$150 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1300 \$250 \$1350 \$135 \$135	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Giass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies	30 2 1 1 4 1 100 1 20 20 1 1 2 10 1 2 10 1 2 1 1 2 1 1 1 1	Days Hours Each Each Hours LS LF LS Hours Tube Days Hours Days Hours Hours LS	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 0-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem	30 2 1 1 4 4 1 1000 1 20 20 20 1 1 1 20 1 1 20 1 1 1 20 1 1 1 20 1 1 1 1	Days Hours Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours LS Hours Days Days Days Hours Days LS Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$250 \$1,350 \$135 \$1,350 \$330 \$330 \$1,350	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - 2-versight Travel and Per Diem Vims Installation Labor - Oversight Travel and Per Diem Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Vims Installation Labor - 3-person Crew Minstallation Labor - 3-person Crew Labor - Oversight Travel and Per Diem	30 2 1 1 4 4 1 100 20 20 1 1 2 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1	Days Hours Each Hours LS LF LS Hours Tube Days LS Days Hours LS Each Hours Tube Days Hours Days Hours LS Each Hours	\$135 \$65 \$3,500 \$750 \$150 \$750 \$150 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1350 \$	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-16/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnost Sampling Labor - Oversight Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Travel and Per Diem for Oversight Travel and Per Diem	30 2 1 1 4 1 100 20 20 20 1 1 2 2 1 1 2 1 1 2 2 1 1 1 2 1 1 1 1	Days Hours Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours LS Hours Days Days Days Hours Days LS Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$1,500 \$1,300 \$1,300 \$160 \$220 \$270 \$1,350 \$1,	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician	30 2 1 1 4 1 100 20 20 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1	Days Hours Each Each Hours LS LF LS Hours Tube Days LS Bays Hours Days Hours LS Each Hours Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$150 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$500 \$3,500 \$3,500 \$750 \$750 \$750 \$65 \$8 \$100 \$250 \$135	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$1,500 \$1,500 \$1,300 \$160 \$1,300 \$160 \$13,350 \$270 \$1,350 \$5,000 \$1,350 \$270 \$1,350 \$	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-016/Keystone Glass Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Miscellaneous Supplies Lexhaust Sampling Labor - Oversight Travel and Per Diem Miscellaneous Supplies Labor - 3-person Crew Node Installation Labor - 3-person Crew Node Installation Mitigation Fan	30 2 1 1 4 1 100 20 20 20 1 1 2 2 1 1 2 1 1 2 2 1 1 1 2 1 1 1 1	Days Hours Each Hours LS LF LS Hours Tube Days LS Days Hours LS Each Hours Days Hours LS Each Hours Each Hours Each Hours Days	\$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$1,350 \$270 \$1,950 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$1,500 \$1,300 \$1,300 \$160 \$220 \$270 \$1,350 \$1,	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day

CP-016/Storage - Infrequent Occupancy Sealing					
Equipment and Subcontractor		1			
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	Eubor rate for 2 person crew \$600m, 1 day, 10 m day
PID Rental	1	Days	\$100	\$100	
Misc Materials Travel and Per Diem for Subcontractor	2	LS Days	\$250 \$135	\$250 \$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight	1	Days	\$135	\$135	
Diagnostic Testing Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies	1	LS	\$500	\$500	
Exhaust Sampling	1	Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight Travel and Per Diem	10	Hours Days	\$135 \$135	\$1,350 \$270	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
VIMS Installation					
Labor - 3-person Crew Node Installation	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Mitigation Fan	1	Each Each	\$3,500 \$750	\$7,000 \$750	
Electrician	4	Hours	\$150	\$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1 100	LS LF	\$750	\$750	Accuse 50 ft of nining for each node
Piping Installation [4" diameter piping]	100	LF	\$50	\$5,000	Assume 50 ft of piping for each node
P-016/Mahan Turf - Infrequent Occupancy					
Sealing Equipment and Subcontractor					
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
Elastomeric Polymer	20	Tube	\$8	\$160	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
PID Rental	1	Days	\$100	\$100	+
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor Labor - Oversight	10	Days Hours	\$135 \$135	\$270 \$1,350	Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight	10	Days	\$135	\$135	rate for a percent elem whostill, i day, forth day
Diagnostic Testing			405		
Labor - 2-person Crew Miscellaneous Supplies	20	Hours	\$65 \$500	\$1,300 \$500	2 people, 1 day, 10-hr day; Average labor rate \$65
Exhaust Sampling	1	Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	2	Each	\$3,500	\$7,000	
Mitigation Fan Electrician	1 4	Each Hours	\$750 \$150	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1	LS	\$750	\$750	
Piping Installation [4" diameter piping]	100	LF	\$50	\$5,000	Assume 50 ft of piping for each node
P-017/Lawn Care Storage - Infrequent Occupancy					
Sealing					
Equipment and Subcontractor Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
·	20				Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew		Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer PID Rental	20	Tube	\$8 \$100	\$160 \$100	
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight Travel and Per Diem for Oversight	10	Hours Days	\$135 \$135	\$1,350 \$135	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Diagnostic Testing		Days	¥133	ψ100	
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies Exhaust Sampling	1 1	LS Each	\$500 \$350	\$500 \$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation		Each		ψ1,550	A TOTAGO EUDOT TRACE FOR O PERSON CIEW - 400/11, 1 day, 10-11 day
	1		\$3,500	\$3,500	
Mitigation Fan	1	Each	\$750	\$750	Facility Market Balleton of colling 1
Electrician	1 4	Each Hours	\$750 \$150	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
	1	Each	\$750	\$750	For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node
Electrician Miscellaneous Materials Piping Installation [4" diameter piping]	1 4 1	Each Hours LS	\$750 \$150 \$750	\$750 \$600 \$750	
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse	1 4 1	Each Hours LS	\$750 \$150 \$750	\$750 \$600 \$750	
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor	1 4 1 50	Each Hours LS LF	\$750 \$150 \$750 \$50	\$750 \$600 \$750 \$2,500	Assume 50 ft of piping for each node
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House Inside warehouse Sealing	1 4 1	Each Hours LS	\$750 \$150 \$750	\$750 \$600 \$750	Assume 50 ft of piping for each node Mobilizations will be combined where practical
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor	1 4 1 50	Each Hours LS LF	\$750 \$150 \$750 \$50	\$750 \$600 \$750 \$2,500	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer	1 4 1 50 1 20 20	Each Hours LS LF LS Hours Tube	\$750 \$150 \$750 \$750 \$50 \$1,500 \$65	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160	Assume 50 ft of piping for each node Mobilizations will be combined where practical
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental	1 4 1 50 50 1 20 20 1 1	Each Hours LS LF LS Hours Tube Days	\$750 \$150 \$750 \$50 \$50 \$1,500 \$65 \$8 \$100	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials	1 4 1 50 1 1 20 20 1 1 1 1	Each Hours LS LF LS LS Hours Tube Days LS	\$750 \$150 \$750 \$50 \$50 \$1,500 \$65 \$8 \$100 \$250	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor	1 4 1 50 50 1 1 20 20 1 1 2 2 10 10	Each Hours LS LF LS Hours Tube Days LS Days Hours	\$750 \$150 \$750 \$50 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Electrician Miscellaneous Materials Pjoing Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight	1 4 1 50 50 1 1 20 20 1 1 1 2 2	Each Hours LS LF LS Hours Tube Days LS Days	\$750 \$150 \$750 \$50 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing	1 4 1 50 50 1 1 20 20 1 1 1 2 2 10 10 1 1	Each Hours LS LF LS Hours Tube Days LS Days Hours	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$270 \$1,350 \$135	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] 2-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies	1 4 1 50 50 1 1 20 20 1 1 2 2 10 10	Each Hours LS LF LS Hours Tube Days LS Days Hours	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$500	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135 \$135	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling	1 4 1 1 50 50 1 1 1 20 20 1 1 1 2 2 1 1 1 1 1 1 1 1	Each Hours LS LS Hours Tube Days Hours Days Hours LS Each	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$270 \$1,350 \$135 \$1,350 \$1	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House Inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight	1 4 4 1 1 50 50 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours LS Each Hours	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$500 \$350 \$350 \$350 \$350 \$350 \$350 \$3	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem for Oversight Travel and Per Diem for Oversight Travel and Per Diem for Oversight Travel and Per Diem	1 4 4 1 1 50 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours Days	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,350 \$350 \$1,350 \$350 \$1,350 \$270	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem Vinscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Vins Installation Labor - 3-person Crew	1 4 4 1 1 50 50 1 1 1 20 20 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours LS LS Hours Tube Days LS Days Hours Days Hours Days Hours Hours LS Each Hours Days	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$500 \$350 \$135 \$135 \$500 \$350 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation	1 4 4 1 1 50 50 1 1 1 20 1 1 1 1 1 1 1 1 1 1 20 2 2 2 3 3 3 2 2	Each Hours LS Hours Tube Days LS Days Hours Days Hours LS Each Hours LS Each Hours Each	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$500 \$350 \$350 \$135 \$500 \$350 \$350 \$135 \$500	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135 \$135 \$270 \$1,350 \$350 \$350 \$270 \$1,350 \$270 \$1,350 \$1,350 \$2,500 \$1,350 \$1,3	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem for Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew	1 4 4 1 1 50 50 1 1 1 20 20 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours LS LS Hours Tube Days LS Days Hours Days Hours Days Hours Hours LS Each Hours Days	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$500 \$350 \$135 \$135 \$500 \$350 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Electrician Miscellaneous Materials Piping Installation [4" diameter piping] P-017/Vacant - House inside warehouse Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Will Travel and Per Diem Will Stampling Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - 3-person Crew Node Installation Labor - 3-person Crew Node Installation Mitigation Fan	1 4 4 1 1 50 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours LS LF LS Hours Tube Days LS Days Hours Each Hours LS Each Hours Each Each Each Each	\$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$750 \$600 \$750 \$2,500 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,350 \$350 \$1,350 \$350 \$1,350 \$1,350 \$1,350 \$7,000 \$7,500 \$7,500	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day

CP-017/Home Improvement Office/Workshop					
Sealing					
Equipment and Subcontractor Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
	20	Tube	\$8	\$1,500	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer PID Rental	1	Days	\$100	\$100	
Misc Materials	1	LŠ	\$250	\$250	
Travel and Per Diem for Subcontractor Labor - Oversight	10	Days Hours	\$135 \$135	\$270 \$1,350	Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight	1	Days	\$135	\$1,350	Labor Rate for 1 person ciew -\$135/fil. 1 day, 10-fil day
Diagnostic Testing					
Labor - 2-person Crew Miscellaneous Supplies	20	Hours LS	\$65 \$500	\$1,300 \$500	2 people, 1 day, 10-hr day; Average labor rate \$65
Exhaust Sampling	1	Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	1	Each	\$3,500	\$3,500	
Mitigation Fan Electrician	4	Each Hours	\$750 \$150	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	1	LS	\$750	\$750	1 of motalisation of magazion ran, 1 nour miniman accounted
Piping Installation [4" diameter piping]	50	LF	\$50	\$2,500	Assume 50 ft of piping for each node
CP-018/Indianapolis Rack and Axle					
Sealing					
Equipment and Subcontractor Mobilization and Site Setup	1	10	Q1 E00	64 500	Mobilizations will be combined where practical
Mobilization and Site Setup	1 00	LS	\$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer PID Rental	20	Tube Days	\$8 \$100	\$160 \$100	
Misc Materials	1	LS	\$250	\$100	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight Travel and Per Diem for Oversight	10	Hours Days	\$135 \$135	\$1,350 \$135	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Diagnostic Testing					
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies Exhaust Sampling	1	LS Each	\$500 \$350	\$500 \$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
VIMS Installation Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	6	Each	\$3,500	\$21,000	Triorage Easer rate for a person eren - quantity rady, to ill ady
Mitigation Fan	1	Each	\$750	\$750	
Electrician Miscellaneous Materials	1	Hours	\$150 \$750	\$600 \$750	For installation of mitigation fan, 4 hour minimum assumed
Piping Installation [4" diameter piping]	300	LF	\$50	\$15,000	Assume 50 ft of piping for each node
CP-023/Vacant					
Sealing					
Equipment and Subcontractor				24.500	
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	
PID Rental Misc Materials	1	Days LS	\$100 \$250	\$100 \$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight Diagnostic Testing	1	Days	\$135	\$135	
Labor - 2-person Crew	20	Hours	\$65		
Miscellaneous Supplies Exhaust Sampling	1			\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
	1	LS	\$500 \$350	\$500	
Labor - Oversight	1 10	Each Hours	\$500 \$350 \$135		Exhaust sampling and analysis, including shipping
Labor - Oversight Travel and Per Diem	1 10 2	Each	\$350	\$500 \$350	
Travel and Per Diem VIMS Installation	2	Each Hours Days	\$350 \$135 \$135	\$500 \$350 \$1,350 \$270	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem		Each Hours	\$350 \$135	\$500 \$350 \$1,350	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitgation Fan	30 2 1	Each Hours Days Hours Each Each	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician	30 2 1 4	Each Hours Days Hours Each Each Hours	\$350 \$135 \$135 \$65 \$3,500 \$750 \$150	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitgation Fan	30 2 1	Each Hours Days Hours Each Each	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping]	30 2 1 4	Each Hours Days Hours Each Each Hours	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation	30 2 1 4	Each Hours Days Hours Each Each Hours	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor	30 2 1 4 1 100	Each Hours Days Hours Each Each Hours LS LF	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing	30 2 1 4	Each Hours Days Hours Each Each Hours	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor	30 2 1 4 1 100	Each Hours Days Hours Each Each Hours LS LF	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer	30 2 1 4 1 100	Each Hours Days Hours Each Hours Each Hours LS LF LS Hours Tube	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$1,300	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental	2 30 2 1 4 1 100 100	Each Hours Days Hours Each Each Hours LS LF LS LF LS	\$350 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$1,000 \$	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer	2 30 2 1 4 1 100 1 1 20	Each Hours Days Hours Each Each Hours LS LF LS Hours Tube Days LS	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$1,300	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight	2 30 2 1 4 1 100 100 1 20 20 1 1 2	Each Hours Days Hours Each Each Hours LS LF LS Hours Tube Days LS Days Hours	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$5,000 \$1,500 \$1,500 \$1,300 \$100 \$250 \$270 \$1,350	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight	2 30 2 1 1 4 1 100 100 20 20 1 1 1 2	Each Hours Days Hours Each Hours Each Hours LS LF LS Hours Tube Days LS Days	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$100 \$250 \$270	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor	2 30 2 1 4 1 100 100 1 20 20 1 1 2	Each Hours Days Hours Each Each Hours LS LF LS Hours LS Days Hours LS	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$100 \$250 \$270 \$1,350 \$135	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr. 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irriqation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew	2 30 2 1 4 1 100 20 20 1 1 2 10 10 20	Each Hours Days Each Each Each Hours LS LF LS Hours Tube Days LS Days Hours Hours LS LS LS LS Hours	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$1,300 \$160 \$13,300 \$13,350 \$13,500 \$10,500 \$10,	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation (4" diameter piping) CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling	2 30 2 1 4 1 100 100 20 20 1 1 1 20 20 1 1	Each Hours Days Hours Each Hours Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours Days Hours Each	\$350 \$135 \$135 \$135 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$1,500 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$350	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$5,000 \$1,300 \$1,300 \$100 \$250 \$1,350	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight	2 30 2 1 4 1 100 1 20 20 1 1 2 10 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours Days Hours Each Hours Each Hours LS LF LS Hours LS LS Hours Tube Days LS Days Hours Days Hours LS Hours Hours Days Hours Hours LS Hours Hours Hours Hours Hours Hours Hours LS Hours Hours Hours Hours Hours Hours	\$350 \$135 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$11,300 \$100 \$250 \$270 \$1,35	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PiD Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem Travel and Per Diem for Oversight Diagnostic Testing Labor - Oversight Travel and Per Diem for Diem for Diem for Diagnostic Testing Labor - Oversight Travel and Per Diem	2 30 2 1 4 1 100 100 1 20 1 1 20 1 1 20 1 1 2 100 1 100 100	Each Hours Days Hours Each Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours Days Hours Days	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1,350 \$1,350 \$1,350 \$270	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation VIMS Installation Labor - 3-person Crew	2 30 2 1 4 1 100 1 20 20 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours Days Hours Each Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours LS Each Hours Tube Days Hours Days Hours LS Each Hours LS Hours Days	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$350 \$350 \$350 \$350 \$350 \$350 \$350 \$	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem for Subcontractor Labor - 3-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Labor - 3-person Crew Node Installation	2 30 2 1 4 1 100 100 1 20 1 1 20 1 1 20 1 1 2 100 1 100 100	Each Hours Each Hours Each Hours LS LF LS Hours LS Hours LS LS LS Hours LS	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135 \$135 \$135 \$135 \$135 \$270 \$1,950 \$270 \$270 \$270 \$270 \$270 \$270 \$270 \$27	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem VIMS Installation Llabor - 3-person Crew Node Installation Mitigation Fan Electrician	2 30 2 1 4 1 100 20 20 1 1 2 10 1 1 2 10 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours Days Hours Each Hours Each Hours LS LF LS Hours Tube Days LS Days Hours LS Each Hours Tube Days Hours LS Each Hours LS Days Hours LS Each Hours Hours LS Each Hours Hours Days	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$150 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$1,300 \$160 \$13,300 \$160 \$13,350 \$270 \$1,350 \$350 \$350 \$350 \$350 \$350 \$350 \$350 \$	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person
Travel and Per Diem VIMS Installation Labor - 3-person Crew Node Installation Mitigation Fan Electrician Miscellaneous Materials Piping Installation [4" diameter piping] CP-023/Walker Irrigation Sealing Equipment and Subcontractor Mobilization and Site Setup Labor - 2-person Crew Elastomeric Polymer PID Rental Misc Materials Travel and Per Diem for Subcontractor Labor - Oversight Travel and Per Diem for Oversight Diagnostic Testing Labor - 2-person Crew Miscellaneous Supplies Exhaust Sampling Labor - Oversight Travel and Per Diem ViMS Installation Labor - 3-person Crew Miscellaneous Supplies Exhaust Sampling Labor - 3-person Crew Miscellaneous Supplies Exhaust Sampling Labor - 3-person Crew Node Installation Midgation Fan Mitigation Fan	2 30 2 1 4 1 100 1 20 1 1 20 1 1 20 1 1 20 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Each Hours Days Hours Each Each Hours LS LF LS Hours Tube Days LS Days Hours Days Hours LS Each Hours Days Hours Each Hours Each Hours Each Hours Days	\$350 \$135 \$135 \$135 \$65 \$3,500 \$750 \$50 \$150 \$750 \$50 \$1,500 \$65 \$8 \$100 \$250 \$135 \$135 \$135 \$135 \$135 \$135 \$135 \$135	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$5,000 \$1,300 \$1,300 \$160 \$250 \$1,350 \$1,350 \$350 \$1,350 \$270 \$1,350 \$270	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day

Sealing	\$1,500 \$1,300 \$160 \$1500 \$250 \$270 \$1,350 \$135 \$135 \$1,300 \$350 \$1,350 \$7,000 \$750 \$5,000 \$1,350 \$1,350 \$1,350 \$1,350 \$270	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew -\$65/hr; 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping
Mobilization and Site Setup	\$1,300 \$160 \$160 \$100 \$250 \$270 \$1,350 \$135 \$135 \$1,300 \$350 \$1,350 \$7,000 \$750 \$5,000 \$1,300 \$1,300 \$1,350 \$1,350 \$1,350 \$1,350 \$1,350 \$1,350 \$1,350 \$270 \$1,350 \$1,350 \$270 \$1,350	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Elastomeric Polymer	\$160 \$100 \$250 \$270 \$1,350 \$1,350 \$350 \$350 \$1,350 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$7,000 \$1,950 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,300 \$1,350 \$270 \$1,350 \$1,350 \$1,350 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$1,350 \$1,350 \$1,350 \$1,350 \$1,350 \$270 \$1,350	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew -\$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
PID Rental	\$100 \$250 \$270 \$1,350 \$1,350 \$350 \$1,350 \$1,350 \$7,000 \$7,000 \$7,000 \$7,50 \$5,000 \$1,300 \$1,300 \$1,300 \$1,350 \$270 \$1,350 \$1,350 \$1,350 \$270 \$1,350	Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Misc Materials	\$250 \$270 \$1,350 \$135 \$135 \$135 \$135 \$135 \$1350 \$350 \$1,350 \$750 \$600 \$750 \$600 \$750 \$1,350 \$1,300 \$1,300 \$1,300 \$1,350 \$	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Travel and Per Diem for Subcontractor	\$270 \$1,350 \$135 \$135 \$135 \$135 \$1350 \$350 \$1,350 \$270 \$1,950 \$7,000 \$750 \$5,000 \$1,300 \$1,300 \$100 \$270 \$1,350 \$1,350 \$270 \$1,350 \$1,350 \$270 \$1,350 \$1,350 \$270 \$1,350 \$270 \$1,350 \$1,350 \$1,350 \$270 \$1,350 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350 \$1,350 \$270 \$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - Oversight	\$1,350 \$135 \$1,350 \$1,350 \$350 \$1,350 \$7,000 \$7,000 \$7,000 \$7,50 \$5,000 \$1,300 \$1,300 \$1,300 \$1,300 \$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65 Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Diagnostic Testing	\$1,300 \$500 \$350 \$1,350 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$100 \$270 \$1,350 \$1,3	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - 2-person Crew 20 Hours \$65	\$500 \$350 \$1,350 \$1,350 \$270 \$1,950 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$100 \$270 \$1,350 \$135 \$135 \$135 \$135 \$135 \$135 \$1350 \$13	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies	\$500 \$350 \$1,350 \$1,350 \$270 \$1,950 \$750 \$600 \$750 \$5,000 \$1,300 \$160 \$100 \$270 \$1,350 \$135 \$135 \$135 \$135 \$135 \$135 \$1350 \$13	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - Oversight	\$1,350 \$270 \$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1,3	Labor Rate for 1 person crew \$135/hr: 1 day, 10-hr day Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Travel and Per Diem	\$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$100 \$270 \$1,350 \$135 \$135 \$135 \$135 \$135 \$135 \$1,350 \$1,	Lodging and Per diem of \$135/day/person Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
VIMS installation	\$1,950 \$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$100 \$270 \$1,350 \$135 \$135 \$135 \$1,350 \$1,3	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Node Installation	\$7,000 \$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$160 \$100 \$270 \$1,350 \$135 \$135 \$135 \$135 \$270 \$1,350 \$350 \$1,350 \$270 \$1,350	For installation of mitigation fan, 4 hour minimum assumed Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr, 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Mitigation Fan	\$750 \$600 \$750 \$5,000 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$1,350 \$500 \$350 \$1,350 \$1,350 \$270 \$1,350 \$	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Electrician	\$600 \$750 \$5,000 \$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$500 \$350 \$1,350 \$270 \$1,350 \$270 \$1,350 \$270 \$1,350	Assume 50 ft of piping for each node Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Piping Installation [4" diameter piping]	\$1,500 \$1,300 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,350 \$350 \$1,350 \$270 \$1,950 \$7,000	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
P-023/Schweidler Construction	\$1,500 \$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,350 \$350 \$350 \$270 \$1,950 \$7,000	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Equipment and Subcontractor	\$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$350 \$1,350 \$350 \$1,350 \$270 \$1,950 \$7,000	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Equipment and Subcontractor	\$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$350 \$1,350 \$350 \$1,350 \$270 \$1,950 \$7,000	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Mobilization and Site Setup	\$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$350 \$1,350 \$350 \$1,350 \$270 \$1,950 \$7,000	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - 2-person Crew	\$1,300 \$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$350 \$1,350 \$350 \$1,350 \$270 \$1,950 \$7,000	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr; 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Elastomeric Polymer	\$160 \$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270	Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
PID Rental	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$3,350 \$270 \$1,950 \$7,000	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Misc Materials	\$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270 \$1,950 \$7,000	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - Oversight	\$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270 \$1,950 \$7,000	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day 2 people, 1 day, 10-hr day; Average labor rate \$65
Travel and Per Diem for Oversight 1	\$135 \$1,300 \$500 \$350 \$1,350 \$270 \$1,950 \$7,000	2 people, 1 day, 10-hr day; Average labor rate \$65
Labor -2-person Crew 20 Hours \$65	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000	
Miscellaneous Supplies	\$500 \$350 \$1,350 \$270 \$1,950 \$7,000	
Exhaust Sampling	\$350 \$1,350 \$270 \$1,950 \$7,000	Exhaust sampling and analysis, including chioning
Travel and Per Diem	\$270 \$1,950 \$7,000	Levinanos oambinio ana anarkoro, includino subbino
VIMS Installation	\$1,950 \$7,000	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Labor - 3-person Crew 30	\$7,000	Lodging and Per diem of \$135/day/person
Mitigation Fan		Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Electrician	\$750	
Miscellaneous Materials	\$600	For installation of mitigation fan, 4 hour minimum assumed
P-023/Chicharo Auto Sealing Equipment and Subcontractor	\$750	
Sealing Equipment and Subcontractor Mobilization and Site Setup 1 LS \$1,500 Labor - 2-person Crew 20 Hours \$65 Elastomeric Polymer 20 Tube \$8 PID Rental 1 Days \$100 Misc Materials 1 Ls \$250 Travel and Per Diem for Subcontractor 2 Days \$135 Labor - Oversight 10 Hours \$135 Travel and Per Diem for Oversight 1 Days \$135 Diagnostic Testing 1 Ls \$65 Miscellaneous Supplies 1 LS \$500 Exhaust Sampling 1 Each \$350 Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation 2 Days \$135 Labor - 3-person Crew 30 Hours \$65 Node Install	\$5,000	Assume 50 ft of piping for each node
Equipment and Subcontractor		
Mobilization and Site Setup		
Labor - 2-person Crew	\$1,500	Mobilizations will be combined where practical
Elastomeric Polymer	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average
PID Rental		Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Misc Materials 1 LS \$250 Travel and Per Diem for Subcontractor 2 Days \$135 Labor - Oversight 10 Hours \$135 Travel and Per Diem for Oversight 1 Days \$135 Diagnostic Testing *** *** Labor - 2-person Crew 20 Hours \$65 Miscellaneous Supplies 1 LS \$500 Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation ** ** Labor - 3-person Crew 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$160 \$100	
Labor - Oversight 10 Hours \$135 Dray and Per Diem for Oversight 1 Days \$135 Diagnostic Testing Labor - 2-person Crew 20 Hours \$65 Miscellaneous Supplies 1 LS \$500 Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation 865 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$250	
Travel and Per Diem for Oversight	\$270	Lodging and Per diem of \$135/day/person Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Diagnostic Testing 20 Hours \$65 Labor - 2-person Crew 20 Hours \$65 Miscellaneous Supplies 1 LS \$500 Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$1,350 \$135	Labor Rate for 1 person crew -\$135/nr: 1 day, 10-nr day
Miscellaneous Supplies 1 LS \$500 Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation		
Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Labor - Oversight 10 Hours \$135 Travel and Per Diem 2 Days \$135 VIMS Installation Hours \$65 Labor - 3-person Crew 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$500 \$350	Exhaust sampling and analysis, including shipping
VIMS Installation 30 Hours \$65 Labor - 3-person Crew 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Labor - 3-person Crew 30 Hours \$65 Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$270	Lodging and Per diem of \$135/day/person
Node Installation 2 Each \$3,500 Mitigation Fan 1 Each \$750 Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$760	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Electrician 4 Hours \$150 Miscellaneous Materials 1 LS \$750	\$7,000	, , , , , , , , , , , , , , , , , , , ,
Miscellaneous Materials 1 LS \$750	\$750 \$600	For installation of mitigation fan, 4 hour minimum assumed
	\$750	r or motaliation or mingation rain, 4 nour millimum assumed
Piping Installation [4" diameter piping] 100 LF \$50	\$5,000	Assume 50 ft of piping for each node
P-024/Insulation Office and Warehouse (Fargo Insulation)		
Sealing		
Equipment and Subcontractor	04.500	Mark Ward and a state of the st
Mobilization and Site Setup 1 LS \$1,500	\$1,500	Mobilizations will be combined where practical Sealing, wall reconstructions, sealing utility penetrations; Average
Labor - 2-person Crew 20 Hours \$65	\$1,300	Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer 20 Tube \$8	\$160	
PID Rental 1 Days \$100 Misc Materials 1 LS \$250		
Travel and Per Diem for Subcontractor 2 Days \$135	\$100	Lodging and Per diem of \$135/day/person
Labor - Oversight 10 Hours \$135	\$100 \$250 \$270	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight 1 Days \$135 Diagnostic Testing	\$100 \$250 \$270 \$1,350	
Labor - 2-person Crew 20 Hours \$65	\$100 \$250 \$270	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies 1 LS \$500	\$100 \$250 \$270 \$1,350 \$135 \$1,300	
Exhaust Sampling 1 Each \$350 Labor - Oversight 10 Hours \$135	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500	Exhaust sampling and analysis, including shipping Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem 2 Days \$135	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350	Labor rate for a person elevi wildonii. I uay, 10-iii uay
VIMS Installation	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500	Lodging and Per diem of \$135/day/person
Labor - 3-person Crew 30 Hours \$65 Node Installation 2 Each \$3,500	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270	Lodging and Per diem of \$135/day/person
Mitigation Fan 1 Each \$750	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270	
Electrician 4 Hours \$150	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270	Lodging and Per diem of \$135/day/person
Miscellaneous Materials 1 LS \$750	\$100 \$250 \$270 \$1,350 \$135 \$1,300 \$500 \$350 \$1,350 \$270 \$1,950 \$7,000	Lodging and Per diem of \$135/day/person

CP-027/Vacant auto shop					
Sealing					
Equipment and Subcontractor			-		
Mobilization and Site Setup	1	LS	\$1,500	\$1,500	Mobilizations will be combined where practical
Labor - 2-person Crew	20	Hours	\$65	\$1,300	Sealing, wall reconstructions, sealing utility penetrations; Average Labor Rate for 2 person crew -\$65/hr; 1 day, 10-hr day
Elastomeric Polymer	20	Tube	\$8	\$160	
PID Rental	1	Days	\$100	\$100	
Misc Materials	1	LS	\$250	\$250	
Travel and Per Diem for Subcontractor	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem for Oversight Diagnostic Testing	1	Days	\$135	\$135	
Labor - 2-person Crew	20	Hours	\$65	\$1,300	2 people, 1 day, 10-hr day; Average labor rate \$65
Miscellaneous Supplies	1	LS	\$500	\$1,300	2 people, 1 day, 10-11 day, Average labor fale \$65
Exhaust Sampling	1	Each	\$350	\$350	Exhaust sampling and analysis, including shipping
Labor - Oversight	10	Hours	\$135	\$1,350	Labor Rate for 1 person crew -\$135/hr: 1 day, 10-hr day
Travel and Per Diem	2	Days	\$135	\$270	Lodging and Per diem of \$135/day/person
VIMS Installation	-	Dayo	\$100	Ų2.0	Loaging and For distinct \$100/00//porcent
Labor - 3-person Crew	30	Hours	\$65	\$1,950	Average Labor Rate for 3 person crew - \$65/hr, 1 day, 10-hr day
Node Installation	3	Each	\$3,500	\$10,500	
Mitigation Fan	1	Each	\$750	\$750	
Electrician	4	Hours	\$150	\$600	For installation of mitigation fan, 4 hour minimum assumed
Miscellaneous Materials	11	LS	\$750	\$750	-
Piping Installation [4" diameter piping]	150	LF	\$50	\$7,500	Assume 50 ft of piping for each node
VIMS Installation, Startup, and Commissioning			0.15	A#0 :	
Oversight - VIMS Startup and Commissioning	440	hours	\$135	\$59,400	1/2 day per structure; 44-days at ten hours for startup assessment
Mobilization and Site Setup - VIMS Startup and Commissioning	1	LS	\$10,000	\$10,000	
Laboratory Analyses - 1 event	1	LS	\$18,794	\$18,794	From Tab Alt_2_Lab
Data Validation - 1 event	1	LS	\$1,383	\$1,383	From Tab Alt_2_DV
Travel and Per Diem - VIMS Startup and Commissioning	45	days	\$135	\$6,075	3-person crew for 15 days
Oversight - VIMS Installation	150	hour	\$135	\$20,250	Construction manager for 15 days, 10-hr Days
Oversight Travel and Per Diem - VIMS Installation	15	days	\$135	\$2,025	
Construction Report	1	each	\$60,000	\$60,000	Draft and Final Construction Completion Report, includes Data Validation and Evaluation
Subtotal (VIMS Sealing, Diagnostic Testing, and Installation by					Validation and Evaluation
Building)				\$769,627	
Banangy					
Contingency	25%			\$192,407	
Project Management	10%			\$76,963	
G&A	7%			\$53,874	
Overhead & Profit	8%			\$61,570	
	Total	Implem	entation Cost	\$1,154,441	
FUTURE COSTS (5 years of O&M to first Five Year Review)					
. O . O . C . C . C . C . C . C . C . C					I
Annual					
Labor	5	each	\$8,100	\$40,500	Assume 2 people for 30 hours/event @ \$135/hr:
Field Equipment	5	each	\$5,100	\$2,500	Rental of field equipment for measurement of physical parameters, including micro-manometer and anemometer
Laboratory and DV	0	each	\$20,177	\$0	Key Assumption - Will rely on physical operation parameters
Report	5	each	\$8.000	\$40,000	Tech Memo Summary of Results
report		Cuon	ψ0,000	ψ+0,000	Tool mone communy of recours
Subtotal			\$36,777	\$83,000	
Contingency	25%		\$9,194.28	\$20,750	
Project Management	10%		\$3,678	\$8,300	
G&A	7%		\$2,574	\$5,810	
Overhead & Profit	8%		\$2,942	\$6,640	
Subtotal			\$55,166	\$124,500	
Monitoring Years 1-5			\$55,166		
Monitoring Total Future Cost				\$124,500	
Present Value (0.4%)	5	woor	0.4%	\$273.639.30	First Voor of Manitaring not Discounted
of Future Cost Monitoring	5	year	0.4%	φ213,039.30	First Year of Monitoring not Discounted
	Present Va		0.4%	\$273,639	Y2017 PV calculated for 5 yrs future cost using 0.4 Real Discount Rate per Office of Management and Budget (2014) guidance.

Other Notes and References:

The "Real" Discount Rate used to calculate the Present Value cost is 0.4% for a timeframe of 5-years per the Office of Management and Budget (OMB), Circular A-94, Appendix C, Revised December 2014, "Discount Rates for Cost Effectiveness, Lease

- The Real Discount Rates are a forecast of real interest rates from which the inflation premium has been removed and based on the economic assumptions from the December 2014 Budget Baseline. These real rates are to be used for discounting

 USEPA. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA OSWER Directive 9355.3-01. EPA/540/G-89/004. October.

USEPA_1080. A Guide to Developing and Documenting Cost Estimates During the Feasibility Studies Under CEMCLA OSYNEA Directive 9355.3-01. EMPA54016-99004. October:

USEPA_2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study With the U.S. Army Cops of Engineers. OSWER 9355-07.5 EPA 540-R-00-002. July.

This is not an offer for construction and/or project execution.

These AACE Classification Classifi

Property ID	Property Type	Address	Building Description	Sample Location ID	Floor		Crawlspace Air Samples		Subslab Soil Gas Samples	Total Area (sq. ft.) as Measured During Building Surveys	Google Earth Estimate	Number of Floors	Number of Rooms	Basement?	Basement Area (sq. ft.)	Sumps, Floor Drains Present?
CP-002	Commercial					1	0	0	0	1344		1	7	No	_	No
CF-002	Commercial					1	U			1344		ľ	,	NO	-	NO
				SS-01	Ground											
			Gym	SS-02	Ground	1	0	0	2	2736		1	7	No	-	No
CP-013	Commercial	2326 E 44th St		IA-02	Ground						4080					
			Thomas Catering Warehouse - Vacant	SS-03	Ground	0	0	0	1	1178		1	2	No	-	No
				SS-01	Ground											
		2203 E 44th St	Woodshop	SS-02	Ground	1	0	0	2	3481	3906	1	6	No	-	No
				IA-01	Ground											
				SS-03	Ground											
		2211 E 44th St	Schouten Metal	SS-04	Ground	1	0	0	2	4560	4860	1	5	No	-	No
				IA-02	Ground											
		2215 E 44th St	Taylor's	SS-05	Ground	0	0		2	2124	2400	4	6	No		Voo
		2215 E 44th St	Automotive - Auto Shop	SS-06	Ground	U	U	0	2	2124	2400	1	О	No	-	Yes
CP-016	Commercial		Onop	SS-07	Ground											
		2217 E 44th St	Keystone Glass	SS-08	Ground	1	0	0	2	1596	2400	1	4	No	-	No
				IA-03	Ground											
			Storage -	SS-09	Ground											_
		2219 E 44th St	Infrequent Occupancy	SS-10	Ground	0	0	0	2	2242	2400	1	7	No	-	No
		2221 E 44th St	Mahan Turf - Infrequent	SS-11	Ground	0	0	0	2	2166	2400	1	6	No	-	No
			Occupancy	SS-12	Ground											
		2223 E 44th St Ste A	Lawn Care Storage	SS-01	Ground	0	0	0		4.400		4	0	No		NI-
		2223 E 44th St Ste A	- Infrequent Occupancy	SS-02	Ground	0	0	0	2	1496		1	8	No	-	No
			Vacant - House	SS-03	Basement											
CP-017	Commercial	2223 E 44th St	inside warehouse	SS-04	Ground	0	0	0	2	2324	5250	2	11	Yes	768	No
				SS-05	Ground											
		2225 E 44th St	Home Improvement	SS-06	Ground	1	0	1	2	1059		1+	4	No	-	No
			Office/Workshop	IA-01	Ground											
				OA-01	Ground											
				SS-01	Ground											
CP-018	Commercial	2301 E 44th St	Indianapolis Rack	SS-02	Ground	0	0	0	3	7952	10700	1	11	No	-	No
			and Axle	SS-03	Ground		-			-				-		-

Property ID	Property Type	Address	Building Description	Sample Location ID	Floor	Indoor Air Samples	Crawlspace Air Samples	Outdoor Air Samples	Subslab Soil Gas Samples	Total Area (sq. ft.) as Measured During Building Surveys	Google Earth Estimate	Number of Floors	Number of Rooms	Basement?	Basement Area (sq. ft.)	Sumps, Floor Drains Present?
				SS-01	Ground						•	,				
	Commercial	2124 Clay St	Vacant	SS-02	Ground	0	0	0	2	2100	4500	1	6	No	-	Yes
		2126 Clay St	Walker Irrigation	SS-03	Ground											
				SS-04	Ground	1	0	0	2	2016	Unknown	1	5	No	-	No
				IA-01	Ground											
CP-023		2128 Clay St	Lawn Care	SS-05 SS-06	Ground Ground	1	0	0	2	2016	2888	1	8	No	-	No
				IA-02	Ground											
		2130 Clay St 2132 Clay St	Schweidler Construction Chicharo Auto	SS-07	Ground											
				SS-08 IA-03	Ground Ground	1	0	0	2	2204	Unknown	1	4	No	-	No
				SS-09 SS-10	Ground Ground	1	0	0	2	1596	Unknown	1	4	No	-	Yes
				IA-04	Ground											
	Commercial	2120 Clay St	Insulation office and warehouse (Fargo Insulation)	SS-01	Ground	1	0	0	3	2425	5750	1.5	16	No	-	No
				SS-02	Ground											
CP-024				SS-03	Ground											
i				IA-01	Ground											
CP-027	Commercial	2102 Clay St	Vacant auto shop	SS-01	Ground	0	0	0	2	3654	4606	1	10	No	-	Yes
				SS-02	Ground	U										
RP-042	Residential	4301 Evanston Ave	Residential	CS-01	Crawl Space	1	1	0	1	Unknown	1596 (excluding basement)	2	13	Yes	650	No
				SS-01	Basement											
				IA-01	Basement											

Total 11 1 1 40

Property ID	Cracks in Lower Level Walls or Floor?	Crawlspace?	Garage?	Roof Type?	Estimated # of Nodes	QC Step: Rationale for Inclusion/VIMS	Other Notes
CP-002	No	No	No	Flat	1	VISL exceedance of PCE and/or TCE at one indoor air location	
CP-013	No	No	No	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	
	Yes	No	No	Flat	1	VISL exceedance of PCE and/or TCE at one subslab soil gas locations	
	Yes	No	Yes	Flat	3	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	It is unknown whether this building compartment has a stemwall that separates the subslab from the rest of the building.
	No	No	Yes	Flat	4	VISL exceedance of PCE and/or TCE at one subslab soil gas locations	
CP-016	No	No	Yes	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	No mention of drain in survey form, but shown on sketch
0. 0.0	No	No	No	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Potentially has floor drains. Sketch unclear. Survey form does not say.
	No	No	Yes	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	
	Yes	No	Yes	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Unclear on number of rooms, whether or not sizeable cracks are present. Potential floor drain.
	Yes	No	Yes	Flat	1	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Dimensions are up for interpretation, therefore area may be off slightly. Sketch unclear on the number of rooms.
CP-017	No	No	Yes	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Number of rooms is unclear on sketch
	No	No	Yes	Flat	1	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Stairwell shown in sketch leading to second floor, however building survey indicates only 1 floor. Google Earth indicates multiple floors.
CP-018	No	No	Yes	Flat	6	VISL exceedance of PCE and/or TCE at three subslab soil gas locations	

Property ID	Cracks in Lower Level Walls or Floor?	Crawlspace?	wlspace? Garage? Roof Type?		Estimated # of Nodes	QC Step: Rationale for Inclusion/VIMS	Other Notes		
	Yes	No Yes		Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Potentially has floor drains. Sketch shows one. Survey form does not say.		
	Yes	No Yes		Unknown, likely flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations			
CP-023	Yes	No	Yes	Flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations			
	Yes	No	Yes	Unknown, likely flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations			
	No	No	Yes	Unknown, likely flat	2	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Dimensions missing on sketch. Area approximated based on relative dimensions. Survey form indicates no floor drain. Sketch indicates otherwise.		
CP-024	Yes	No	Yes	Sloped/flat	2	VISL exceedance of PCE and/or TCE at three subslab soil gas locations			
CP-027	Yes	No	Yes	Flat	3	VISL exceedance of PCE and/or TCE at two subslab soil gas locations	Building survey indicates basement sump, but not basement.		
RP-042	No	Yes	Yes	Sloped	2	VISL exceedance of PCE and/or TCE at one subslab soil gas locations	Dimensions for first floor missing. Estimated nodes based off of Google Earth estimate.		